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10/687,901	10/17/2003	Youn Ho Nam	2080-3-181	1954
<div>7590 Jonathan V. Kang, Esq. Lee &amp; Hong, P.C. 14th Floor 807 South Figueroa Street Los Angeles, CA 90017</div>			<div>EXAMINER CHEN, QING</div>	
			<div>ART UNIT 2191</div>	<div>PAPER NUMBER</div>
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/23/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/687,901

Applicant(s)

NAM ET AL.

Examiner

Qing Chen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This Office action is in response to the amendment filed on December 14, 2006.
2. **Claims 1-8** are pending.
3. **Claims 1, 4, and 6** have been amended.
4. **Claim 8** has been added.
5. The objection to the oath/declaration is maintained, since the Office has not received a supplemental oath/declaration to address the objection.
6. The objections to the drawings due to informalities are withdrawn in view of Applicant's amendments to the drawings. However, the objection to the drawings regarding labeling Figure 1 as "Prior Art" is maintained in view of Applicant's arguments and further explained below.
7. The objection to the abstract is withdrawn in view of Applicant's amendments to the abstract.
8. The objections to the specification due to informalities are withdrawn in view of Applicant's amendments to the specification. However, the objection to the specification regarding the use of the term "related art" is maintained and further explained below.
9. The objections to Claims 4 and 6 are withdrawn in view of Applicant's amendments to the claims.
10. The 35 U.S.C. § 112, second paragraph, rejections of Claims 4 and 6 are withdrawn in view of Applicant's amendments to the claims.

***Response to Amendment***

***Oath/Declaration***

11. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

- The application numbers of the two foreign applications, having filing dates before that of the application on which priority is claimed, are wrong. The correct application numbers should be 10-2002-64272 and 10-2002-64444, respectively.
- The filing date for the foreign application (10-2002-64444) is wrong. The correct filing date should be October 22, 2002.

***Drawings***

12. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). The field of endeavor of the present invention and the art associated with Figure 1 both concern with upgrading system software of a home appliance. Figure 1 is depicted as a method of upgrading a home appliance that has drawbacks in which the present invention attempts to alleviate. Therefore, Figure 1 should be label as "Prior Art," instead of "Related Art," because Figure 1 illustrates a method of upgrading a home appliance that was done in the past. Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Reference number "S340" in Figure 3.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

13. The disclosure is objected to because of the following informalities:

- All instances of the term "related art" in the specification should be changed to "prior art," since the art is already known and done in the past (see objection to the drawings above).

Appropriate correction is required.

***Claim Objections***

14. **Claims 1-3 and 8** are objected to because of the following informalities:

- **Claims 1 and 2** recite the limitation “the home network.” Applicant is advised to change this limitation to read “the local home network” for the purpose of providing it with proper explicit antecedent basis.
- **Claim 3** depends on Claim 1 and, therefore, suffers the same deficiency as Claim 1.
- **Claims 1 and 3** recite the limitation “the system software version of the corresponding home appliance.” Applicant is advised to change this limitation to read “the latest system software version of the corresponding selected home appliance” for the purpose of providing it with proper explicit antecedent basis.
- **Claim 2** depends on Claim 1 and, therefore, suffers the same deficiency as Claim 1.
- **Claim 8** recites the limitation “the appliances.” Applicant is advised to change this limitation to read “the plurality of appliances” for the purpose of providing it with proper explicit antecedent basis.
- **Claim 8** contains a typographical error: the word “is” should be changed to “are” in the last limitation, since more than one step is recited in the limitation body.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

15. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

16. **Claims 1-5** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The relevant portion of the originally-filed specification appears to only disclose replacing the system software of the home appliance with the downloaded system software through the home network (*see Page 10, Paragraph [0037]*). There appears to be no mentioning of “copying the downloaded system software from the home server to the home appliance” in order to replace the system software embraced by the originally-filed specification. Accordingly, Claims 1-5 recite new matter not described in the specification in a manner that reasonably conveys that the inventors had possession of the invention at the time of filing.

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17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. **Claims 1-3 and 8** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 1 and 2** recite the limitation “the home appliance.” There is insufficient antecedent basis for this limitation in the claims. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading “the selected home appliance” for the purpose of further examination.

**Claim 3** depends on Claim 1 and, therefore, suffers the same deficiency as Claim 1.

**Claim 8** recites the limitation “the determining.” There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading “the determining of the second version of the software code” for the purpose of further examination.



***Claim Rejections - 35 USC § 102***

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. **Claims 1-3 and 8** are rejected under 35 U.S.C. 102(b) as being anticipated by **MacInnis** (US 5,951,639).

As per **Claim 1**, MacInnis discloses:

- reading a system software version of a selected home appliance from among a plurality of home appliances, wherein the system software of the selected home appliance is to be upgraded among said plurality of home appliances, wherein a home server is connected to an appliance company server over an Internet and the home server is connected to each of said plurality of home appliances in a local home network, wherein the selected home appliance communicates via the home server and over the Internet with the appliance company server (*see Figure 2; Column 3: 30-34, "the system 200 includes an authoring source 201, a transmitting source 202 such as a headend, a network N such as a cable television network, and a plurality of terminals 203 and 204 such as HCTs which are coupled to the network."; Column 4: 41-47, "... each terminal may include an internal table such as table 203a in terminal 203. Table 203 may identify ... the version number of the currently executing operating system ..."*);

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- reading a latest system software version corresponding to the selected home appliance from the appliance company server (*see Column 5: 8-13, "... each module can have associated therewith descriptors for ... operating system version 309 ... "*);
- comparing the system software version of the selected home appliance in the local home network with the latest system software version of the corresponding selected home appliance in the appliance company server (*see Column 7: 39-42, "... a comparison is made between the highest compatible operating system version number available in the received descriptor table and the currently executing operating system version number in the terminal. "*);
- if the latest system software version of the corresponding selected home appliance in the appliance company server is newer than the system software version of the selected home appliance in the local home network, downloading the system software of the corresponding home appliance from the appliance company server to the home server (*see Column 7: 45-48, "... if a newer (higher) version of the operating system is available, in step 406 the terminal downloads the newer version from the download data stream ... "*); and
- replacing the system software of the selected home appliance at home with the downloaded system software through the local home network by copying the downloaded system software from the home server to the selected home appliance (*see Column 7: 48-49, "... reboots the terminal in step 407 to install the newer version. "*).

As per **Claim 2**, the rejection of **Claim 1** is incorporated; and MacInnis further discloses:

- wherein the step of reading the system software version of the selected home appliance in the local home network is periodically performed (*see Column 6: 13-18, "... table T*

*may be transmitted continuously over network N to all terminals, which receive the table and extract information therefrom to determine which modules are compatible with the terminal."*).

As per **Claim 3**, the rejection of **Claim 1** is incorporated; and MacInnis further discloses:

- wherein the step of reading the latest system software version of the corresponding selected home appliance from the appliance company server is periodically performed through the Internet (*see Column 6: 13-18, "... table T may be transmitted continuously over network N to all terminals, which receive the table and extract information therefrom to determine which modules are compatible with the terminal."*).

As per **Claim 8**, MacInnis discloses:

- determining a first version of a software code locally available to a first appliance (*see Column 4: 41-47, "... each terminal may include an internal table such as table 203a in terminal 203. Table 203 may identify ... the version number of the currently executing operating system ..."*);
- determining a second version of a software code designated for the first appliance and remotely available for the first appliance on a remote server connected to the home server over a remote connection (*see Figure 2; Column 3: 30-34, "the system 200 includes an authoring source 201, a transmitting source 202 such as a headend, a network N such as a cable television network, and a plurality of terminals 203 and 204 such as HCTs which are coupled to the network."*; Column 5: 8-13, "... each module can have associated therewith descriptors for ... operating system version 309 ...");

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- downloading the second version of the software code via the remote connection by way of the home server, in response to determining that the second version of the software code is newer than the first version of the software code (*see Column 7: 45-48, "... if a newer (higher) version of the operating system is available, in step 406 the terminal downloads the newer version from the download data stream ..."*); and
- replacing the first version with the second version, wherein the determining of the second version of the software code, downloading and replacing steps for each of the plurality of appliances in the home network are performed by the home server (*see Column 4: 34-38, "The actual downloading procedure may be accomplished by selectively extracting the module from a separate channel on which transmitting source 202 continuously broadcasts all versions of all the modules in a loop, or by other means."*; *Column 7: 48-49, "... reboots the terminal in step 407 to install the newer version."*).

21. **Claims 4-7** are rejected under 35 U.S.C. 102(b) as being anticipated by **Fitzpatrick** (US 2002/0012347).

As per **Claim 4**, **Fitzpatrick** discloses:

- selecting a system software of a home appliance to be updated from a data broadcast which provides upgrade information of the system software of home appliances (*see Paragraph [0059], "FIG. 10 is a flowchart of a STB process 430 of retrieving an upgrade within the STB using data carousels in the embodiment. In operation, when an upgrade is available (step 402),*

*the upgrade server of the cable head end 10 transmits the download descriptor carousel throughout the cable network 11 to STBs 200 (step 404).");*

- downloading the selected system software from an appliance company server to a home server through Internet, wherein the home server is connected to the home appliance in a local home network (*see Figure 6; Paragraph [0024], "The system 100 includes a service provider head end 10, remote server 48, Internet 44, audio/visual devices 26, Internet appliances 28, television 24, set-top box ("STB") 22, and remote control 36."; Paragraph [0059], "If linked descriptor is located in the descriptor carousel, it is downloaded and decoded to determine which module carousel will contain module upgrades for the STB (step 414) (for the particular STB model or software version).");* and

- replacing the system software of the home appliance at home with the downloaded system software by copying the downloaded system software from the home server to the home appliance over the local home network (*see Paragraph [0059], "When the module carousel matches one in the descriptor file, the STB waits for the corresponding modules of the module carousel, downloads, and installs them (steps 420 and 422). The STB 200 may generate an acknowledgment message when it successfully completes installation of all the modules associated with a descriptor file (steps 424 and 426).").*

As per **Claim 5**, the rejection of **Claim 4** is incorporated; and Fitzpatrick further discloses:

- wherein the home server is a set top box connected to a digital television receiver (*see Paragraph [0026], "The STB 22 may be coupled to the TV 24 ...").*

As per **Claim 6**, Fitzpatrick discloses:

- transmitting a system software for a selected home appliance from an appliance company server to a broadcasting station through Internet (*see Figure 1; Paragraph [0024], "The system 100 includes a service provider head end 10, remote server 48, Internet 44, audio/visual devices 26, Internet appliances 28, television 24, set-top box ("STB") 22, and remote control 36."*; Paragraph [0025], *"The media server 12 and Software code update server 16 are coupled by a transmission medium 20 to the set top box (STB) 22."*);
- propagating a broadcasting stream including the system software (*see Paragraph [0046], "In this embodiment there are three communications channels between the cable head end 10 and the STB 200 that the Upgrade Client/Server system 266 can use to transfer data and receive request/acknowledge messages including the cable modem interface, the out of band ("OOB") channel, and the in band ("IB") data channel."*);
- downloading the system software to a home server through a digital television receiver which receives the broadcasting stream, wherein the home server is connected to a plurality of home appliances in a home network (*see Figure 6; Paragraph [0026], "... system 100 further includes a TV 24, such as a digital television."*; Paragraph [0059], *"If linked descriptor is located in the descriptor carousel, it is downloaded and decoded to determine which module carousel will contain module upgrades for the STB (step 414) (for the particular STB model or software version)."*); and
- replacing the system software of the selected home appliance with the system software downloaded to the home server through the home network (*see Paragraph [0059],*

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*"When the module carousel matches one in the descriptor file, the STB waits for the corresponding modules of the module carousel, downloads, and installs them (steps 420 and 422). The STB 200 may generate an acknowledgment message when it successfully completes installation of all the modules associated with a descriptor file (steps 424 and 426)."*

As per **Claim 7**, the rejection of **Claim 6** is incorporated; and Fitzpatrick further discloses:

- wherein the home server is a set top box connected to the digital television receiver (see Paragraph [0026], *"The STB 22 may be coupled to the TV 24 ..."*).

### ***Response to Arguments***

22. Applicant's arguments filed December 14, 2006 have been fully considered, but they are not persuasive.

#### ***In the remarks, Applicant argues that:***

a) In contrast, as recited in amended claims 1, 4 and 6, the present invention operates by way of a centralized local home server, which determines which one of the appliances connected to it in a local home network require a software update. Thus, MacInnis teaches away from the claimed invention by requiring that each HTC individually and independently perform that actions required to download the programming information from a remote server.

#### ***Examiner's response:***

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a) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a centralized local home server, which determines which one of the appliances connected to it in a local home network require a software update) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***In the remarks, Applicant argues that:***

b) Referring to MacInnis, particularly col. 1, lns. 42-61, MacInnis further teaches away from the claimed invention by emphasizing that the disclosed system in MacInnis is designed to eliminate a "two-way" communication between the terminal and the remote server (headend). This teaching is in contradiction to the claimed invention which provides for a two-way (request-reply) communication between the home server and the remote source.

***Examiner's response:***

b) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a two-way (request-reply) communication between the home server and the remote source) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).



***In the remarks, Applicant argues that:***

c) Since MacInnis teaches away from the claimed invention in claim 1, in several different aspects, it is respectfully submitted that it is not a proper reference. Further more, as discussed above, MacInnis fails to teach all the elements of the claimed invention such as a local server and other recited relationships between the home appliances and the remote server that result in download of the proper software code to the local network.

***Examiner's response:***

c) Examiner disagrees. MacInnis anticipates every recited limitation of Claim 1, and therefore, is a proper reference. Furthermore, MacInnis clearly discloses a local server and other recited relationships between the home appliances and the remote server that result in download of the proper software code to the local network (*see Figure 2; Column 3: 31-32, "... a transmitting source 202 such as a headend ..."; Abstract, "A system for downloading different versions of software or data modules into a plurality of terminals having different compatibility interfaces includes an authoring component for generating the different module versions, a downloading source including a descriptor table which associates each module version with a list of compatibility requirements needed to download the module, and a plurality of terminals coupled to the downloading source."*).

***In the remarks, Applicant argues that:***

d) Referring to the amended claims 4 and 6, Fitzpatrick suffers from the same deficiencies as MacInnis in that it teaches away from the use of a central home server to request, download

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and process the information provided from the remote source. As such, Fitzpatrick also is not a proper 102 reference and also fails to teach every recited element in claims 4 and 6.

***Examiner's response:***

d) Examiner disagrees. Fitzpatrick anticipates every recited limitation of Claims 4 and 6, and therefore, is a proper reference. Furthermore, Fitzpatrick clearly discloses the use of a central home server to request, download and process the information provided from the remote source (see Figure 1; Figure 6; Paragraph [0024], "The system 100 includes a service provider head end 10, remote server 48, Internet 44, audio/visual devices 26, Internet appliances 28, television 24, set-top box ("STB") 22, and remote control 36. The head end of the service provider 10 includes a media server 12, software code update server 16, and ISP Host 38. The media server 12 of the head end 10 provides on demand movies and other programming such as interviews with actors, games, advertisements, available merchandise, associated Web pages, and other related content obtained from a media database 14. The software code update server 16 includes a software code update database 18 for generating update modules to be transmitted to STBs. The ISP host 38 includes a content database 52 and is coupled to remote servers 48 via the Internet 44. The remote servers may include another content such as video on demand ("VOD") content. The ISP host 38 includes protocols that enable communication between remove servers 48 via the Internet 44.").

***Conclusion***

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QC / QC  
February 2, 2007



WEI ZHEN  
SUPERVISORY PATENT EXAMINER